

REPORT ON THE MOLLUSCA COLLECTED BY MR. HERBERT  
BASEDOW ON THE SOUTH AUSTRALIAN GOVERNMENT  
NORTH-WEST EXPEDITION, 1903.

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[Communicated by HERBERT BASEDOW.]

PLATE XXX.

[Read April 4, 1905.]

The Eremian Region has been shown by the investigations of the Horn Expedition to possess a considerable and varied snail population. Desert influence has left its stamp on the larger snail shells. Though quite unrelated to the forms that people the arid regions of Asia, Africa, or America, these Australian shells repeat in their chalky texture and rough sculpture the features of foreign species subjected to similar environment.

The collection which Mr. Basedow kindly invited me to examine has both added to the list of known forms and enlarged the range of those previously described.

I am indebted to Dr. J. C. Verco for an opportunity of examining the types of several species described by the late Professor R. Tate.

Mr. Basedow has generously deposited in the Australian Museum the collection here discussed.

**Diplodon wilsonii**, Lea.

For bibliography see Simpson, Proc. U.S. Nat. Museum xxii., 1900, p. 893.

*Hab.*—Algebuckinna Waterhole and Warrungudinna Waterhole, in the bed of the Alberga River.

**Isidora newcombi**, Adams & Angas.

For a discussion of this Eremian species, see Tate, Rep. Horn. Exped. ii., Zool., 1896, p. 213.

*Hab.*—Day's Gully and Hector Pass, Mann Ranges: Indulkanna Creek, Warrungudinna Waterhole, on the Alberga.

**Thersites basedowi**, n. sp.

Plate xxx., figs. 1, 2, 3.

Shell discoidal, of thin and light substance, spire almost flat, umbilicus broad and shallow. Colour buff. Whorls four, parted by sharply impressed sutures. Last whorl acutely keeled at the periphery, rising at the last half-turn above the level of the coil, previous to plunging deeply below it, freed at the aperture from the adjoining whorl. Sculp-

ture: irregular, distant growth lines, and close-set microscopic grains (fig. 2). Aperture very oblique, nearly horizontal; lip entire, a little curled back, broadly expanded. Maj. diam., 19 mm.; min. diam., 15 mm.; height, 6 mm.

A smaller, less sharply keeled specimen from the Mann Range is regarded for the present as a variety.

Compared with its nearest ally, *T. howardi*, Angas, the novelty is smaller, flatter, without colour bands, but with more decided granular sculpture. A specimen which I dissected containing a generative system characteristic of *Thersites*, and comparable to that of *T. setigera*, Tate, Horn Exped., Zool., p. 222, fig. F.

*Hab.*—Musgrave Ranges.

### **Xanthomelon sublevatum**, Tate.

Plate xxx., figs. 7, 8, 9.

*Thersites sublevata*, Tate, Rep. Horn Exped., Zool. ii., 1896, p. 196, Pl. xvii., fig. 5.

A specimen from the Musgrave Ranges extends the known distribution of this species. It was identified by comparison with examples named by its author. As the figure quoted is unsatisfactory, others are now presented.

### **Xanthomelon perinflatum**, Pfeiffer.

Apparently this snail is both most numerous individually and widest spread in this region. Its range is discussed by Professor Tate (*op. cit.*, p. 198).

*Hab.*—Musgrave Ranges.

### **Xanthomelon flindersi**, Ad. & Angas.

*Hab.*—Musgrave Ranges.

### **Xanthomelon angasianum**, Pfeiffer.

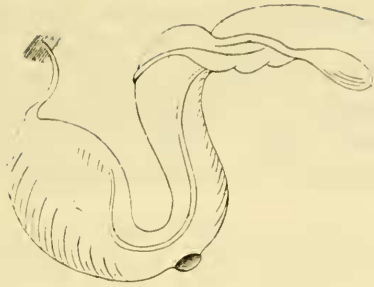
*Hab.*—Musgrave Ranges.

### **Xanthomelon clydonigerum**, Tate, var.

Plate xxx., figs. 10, 11, 12.

*Thersites (Glyptorhagada) clydonigera*, Tate, Rep. Horn Exped., Zool. ii., 1896, p. 195, Pl. xix., fig. 24.

The type of this species, now in the possession of Dr. J. C. Verco, is bleached, and, through a malformation of the later whorls, is subscalar. Compared with Mr. Basedow's examples the unique type is, therefore, more elevated; it is also smaller and rather more coarsely sculptured. As the type is not only in poor condition, but distorted, I have hesitated in regarding the apparent difference as of specific value, and have compromised by offering a description and figures of the shell obtained by Mr. Basedow under this title.



The reproductive system, a partial dissection of which is here shown, demonstrates that the species is included in *Xanthomelon*, as opposed to *Thersites*.

Shell depressedly globose, narrowly perforate, substance rather light and thin. Colour cinnamon-brown, paler on the base. Whorls five, parted by sharply impressed sutures. Periphery rounded, but the flattening of the whorl above suggests an incipient keel. The last whorl descends at the aperture deeply and abruptly with a wavering suture. Sculpture: the first two whorls are smooth to the eye, but under the lens fine vermiculate etchings appear. The adult sculpture commences suddenly, and consists of close, fine, irregular, backwardly curved riblets, which grow lamellate near the aperture. During their traverse of the whorls the riblets sometimes unite, divide or end untimely, while fresh threads may be intercalated. At the periphery the riblets are especially prone to anastomose, on crossing the base they become finer and more regular. Umbilicus very narrow, deep, with a furrow entering spirally from under the columellar expansion. Aperture oblique ovate, outer lip broadly expanded, margins united by a callous ridge, columella partly arching over the umbilicus.

Maj. diam., 22 mm.; minor diam., 18 mm.; height, 15 mm.

*Hab.*—Musgrave Ranges.

#### ***Xanthomelon wilpenense*, Tate.**

*Hadra wilpenensis*, Tate, Trans. Roy. Soc., S.A., 1894, p. 193.

*Hab.*—Musgrave Ranges.

#### ***Xanthomelon radiatum*, n. sp.**

Plate xxx., figs. 4, 5, 6.

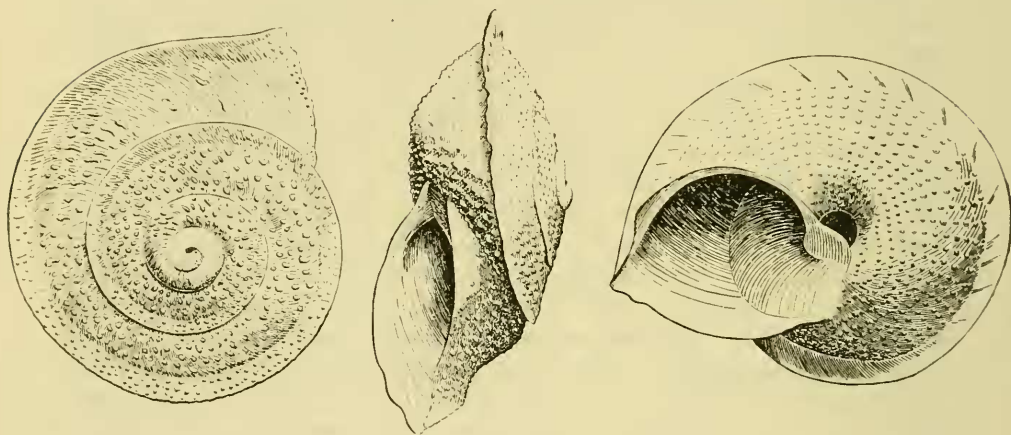
Shell lenticular, solid, narrowly perforate, spire slightly elevated. Last whorl bluntly angled at the periphery, rather swollen, and then much contracted behind the aperture. Colour uniform isabelline. Whorls four, parted by an impressed suture. Sculpture: First two whorls microscopi-

cally granose-vermiculate, remainder radiately ribbed. Ribs regular, prominent, increasing in strength with the growth of the shell, interstices deeply gouged, in breadth equalling the ribs, on the last whorl numbering about 45. Umbilicus oblong, narrow, and deep. Aperture oblique, lunate-ovate, lip expanded and reflected, margins united by a notched, callosous film.

Maj. diam., 12 mm.; min. diam., 10 mm.; height, 6 mm. The nearest relation to this seems to be *Angasella papillosa*, Tate, which is larger, with fainter radial sculpture.

*Hab.*—Mount Davies, Tomkinson Ranges, and Musgrave Ranges.

### **Xanthomelon asperrimum**, n. sp.



Shell depressed, acutely carinated, narrowly perforated, thin, dull. Colour, uniform chalk white. Whorls four, flattened above, spire plane or elevated. Suture wound under the peripheral shelf of earlier whorls. Last whorl descending in front. Sculpture: The first whorl and a half finely shagreened, on the rest of the shell large and prominent grains are thickly set in anterior and posterior curves, which intersect each other at right angles. At the periphery the shell is pinched into a broad projecting keel. Base inflated. Umbilicus deep and narrow. Aperture oblique, lip sharp and thin, a little expanded, columella arching over part of the umbilicus. Margins united by a callus band.

Maj. diam., 20 mm.; min. diam., 16 mm.; height, 9 mm.

The peculiar form of this species amply distinguishes it from its congeners. The influence of desert conditions on the sculpture of the shell, such as are shown by this species, has been lucidly discussed by Dr. Dall (Proc. Acad. Philad., 1896, p. 411).

*Hab.*—Mann Ranges.

## EXPLANATION OF PLATE.

Figs. 1, 2, 3. Various aspects and magnified sculpture of *Thersites basedowi*, Hedley.

Figs. 4, 5, 6. Various aspects of *Xanthomelon radiatum*, Hedley.

Figs. 7, 8, 9. Various aspects of *Xanthomelon sublevatum*, Tate.

Figs. 10, 11, 12. Various aspects of *Xanthomelon clydonigerum*, Tate var.

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